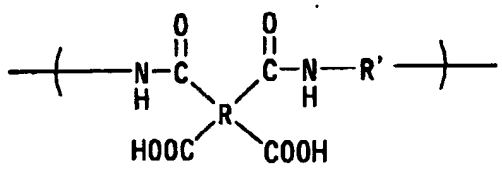
CLAIMS

1. A polyimide precursor solution comprising a polyimide precursor which is either a homopolymer or a copolymer of a polyamide acid made from the reaction between acid component(s) and amine component(s) and having a repetition unit illustrated by the following a constitutional formula, said polyimide precursor being dissolved in a solvent mixture of one or more kind(s) of solvent having a lower boiling point under 100°C, and one or more kind(s) of solvent having a higher boiling point of 100°C or more, wherein said higher boiling point solvent(s) is included in said solvent mixture in an amount of 5 to 55% by weight.

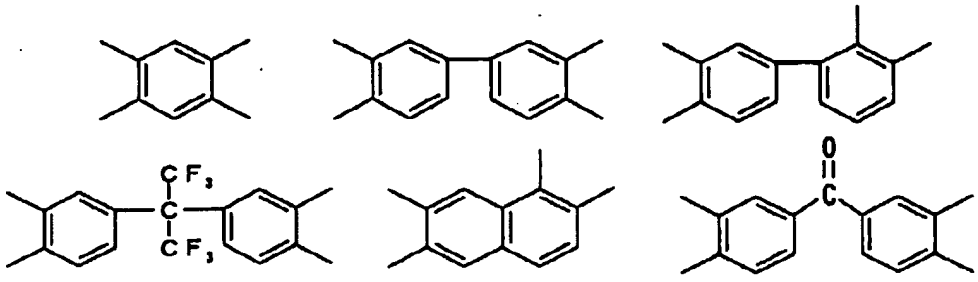
(Constitutional formula 1)



..... (1)

wherein R is a group selected from among the four valence aryl groups illustrated by the following constitutional formulae, and R' is two valence aryl groups having one to four benzene nuclei,

(Constitutional formula 2)



2. A polyimide precursor solution of Claim 1, wherein said lower boiling point solvents(s) is (are) one or more kind(s) of solvent selected from among the group of tetrahydrofuran (THF), methanol, ethanol, l–propanol, and 2-propanol, and said higher boiling point solvent(s) is (are) one or

more kind(s) of solvent selected from among the group of N-methyl-2-pyrrolidone (NMP), N, N-dimethyl formamide (DMF), and N, N-dimethylacetoamide (DMAc)

3. A polyimide precursor solution of Claim 1 or 2, wherein said acid component(s) is(are) one or more kind(s) of acid component selected from among the group of 3, 3', 4, 4'-biphenyl tetracarboxylic acid dianhydride, pyromellitic acid dianhydride, and 3, 3', 4, 4'-benzophenone tetracarboxylic acid dianhydride.
4. A polyimide precursor solution of Claim 1 or 2, wherein said amine component(s) is(are) one or more kind(s) of amine component selected from among the group of 4, 4-diphenyl diamino ether and p-phenylene diamine.
5. A polyimide precursor solution of Claim 1 or 2, wherein said acid component(s) is (are) one or more kind(s) of acid component selected from among the group of 3, 3, 4, 4'-biphenyl tetracarboxylic acid dianhydride, pyromellitic acid, dyanhydride and 3, 3, 4, 4'-benzophenone tetracarboxylic acid dianhydride, and said amine component(s) is (are) one or more kind(s) of amine component selected from among 4, 4-diphenyl diamino ether and p-phenylenediamine.
6. A polyimide precursor solution of Claims 1 and 5, wherein the weight ratio of the higher boiling point solvent/solid component is of 1.5 or less weight ratio.
7. Transfer and fixing parts having a surface on which a polyimide film is formed, said polyimide film being formed by coating any of said polyimide precursor solution(s) of Claims 1 to 6 to form a coating film, and heating said coating film at a high temperature to cyclize said polyimide precursor.
8. A polyimide precursor solution of Claim 7, wherein said transfer and fixing parts are a middle transfer belt, a middle transfer drum, a transfer and fixing belt, a fixing roller, and a fixing belt.
9. A method for manufacturing a polyimide seamless belt comprising the coating of any of said polyimide precursor solution(s) of Claims 1 to 6 on the surface of a cylindrical core mold to form a coating film, then heating said coating film at a high temperature to cyclize said polyimide precursor,

and form a polyimide film, then removing said polyimide film from said cylindrical core mold.